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## REMARKS

Claims 1-9 and 21-24 remain in this application. Claims 10-20 have been withdrawn. Claims 6, 21 and 22 have been amended. Claims 1, 21 and 22 are independent claims.

In an Office action dated March 2, 2004, clarification as to the status of claims 10-20 was requested. Claims 10-20 have been withdrawn for being directed to a nonelected invention as a result of a restriction requirement.

In the Office action, the rejection based upon Tullis et al. was withdrawn. However, a new basis for rejection was set forth. Specifically, all of the pending claims were rejected under 37 U.S.C. 102(e) as allegedly being anticipated by Quadranti et al. In response, Applicants have amended claims 6, 21 and 22 to more clearly distinguish the claimed invention from the cited prior art. The amendments more clearly distinguish (a) the imaging of a medium, such as a sheet of paper, from (b) the analysis of an image to determine whether the image can be replicated.

Claim 6 has been amended to state that the media classes include at least one type of paper. Thus, the "medium of interest," will be associated with a selected media class, where the classes include at least one type of paper. This distinguishes the invention from the matching of "information signals" on the basis of image directionality, image symmetry, or image regularity. Support for the amendment to claim 6 may be found in various portions of the application as originally filed. For example, on page 15, lines 34-36, it is stated that at step 72, an unknown medium, such as a particular type of paper is imaged using the sensor 28. Moreover, the illustrated embodiment of Fig. 1 shows the invention used with a printer 10 having an input tray 30 with a stack of print medium, such as paper.

Claims 21 and 22 have been amended to state that the "textural features" of concern are surface textural features that are inherent to the medium or media class. The amendments distinguish the claimed invention from techniques for considering information signals, since signals do not

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include "surfaces" and the reference to Quadranti et al. does not teach that images have textural features which are <u>inherent</u> to the medium. Support for the amendments to claims 21 and 22 may be found on pages 11-13 of the application as originally filed. On page 11, lines 29-36, it is stated that the sensor is used to image <u>surface texture.</u> Multiple samples may be obtained by scanning the sensor over the sheet surface. On page 13, lines 13-17, it is stated that using a grazing angle illumination will cause shadows from paper fibers and other structural features <u>that are inherent to the print medium that is being imaged</u>. While transparencies do not include paper fibers, transparencies include heat-induced surface features that are characteristics of such media.

Reconsideration of the claims in view of the amendments is requested.

A.    <u>"Texture" of an Image or Other Information Signal as Compared to "Textural Features" of a Medium</u>

Claim 1 states that the image-related measurements are acquired from measuring textural features <u>which are characteristic of different classes of media</u>. Moreover, claim 1 states that in the imaging of the medium of interest, image information is acquired regarding textural features <u>related to structure of the medium of interest</u>.

Lines 22-25 in column 3 of Quadranti et al. are cited as being relevant to the step of imaging a medium of interest to acquire image information regarding textural features. The cited sentence identifies the <u>signal</u> as having the texture. The medium on which an image is formed is not of interest to the method described in Quadranti et al. Rather, Applicants contend that the method described in the prior art patent operates optimally only when the "information signal" is exclusively directed to the image, rather than being affected by textural features related to structure of the medium on which the image is formed. That is, the "information signal" should be medium-neutral. As not d in the last sentence of th ABSTRACT of

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Quadranti et al., the process is used to determine whether the texture can be replicated. This is consistent with the decision making process shown in Fig. 2 of the patent. With each test of texture, a decision is made as to whether the texture is replicable or non-replicable.

Briefly stated, the prior art teaches a method that is media-neutral, since the classification process is used to determine the replicability of the texture of the information signal. Texture is defined in column 3, lines 25-28 of the Quadranti et al. patent as visually perceptible characteristics of the image or other information signal, such as the directionality, symmetry or regularity of the information signal. For example, to estimate directionality, a correlation sequence $(c_k)$ is constructed to express the variation of texture edges along the horizontal or vertical axis (Quadranti et al.: column 6, lines 5-7). Fig. 8a of the patent illustrates an image having a high degree of directionality, while Fig. 8d is an example of an image having a low degree of directionality.

Pending claim 1 states that the input parameters of the probabilistic input-output system are associated with image-related measurements acquired from imaging textural features which are characteristic of different classes of media. This is not anticipated by Quadranti et al., since the "textural features" of Quadranti et al. are related to characteristics indicating the reproducibility of an image. The features indicative of replicability of an image are unrelated to the features characteristics of different classes of media which may be imaged in acquiring the image information.

Claim 1 also includes imaging a medium of interest to acquire image information regarding textural features of the medium of interest. The probabilistic input-output system is then employed to associate the medium of interest with a selected media class. This is not anticipated, taught or suggested by Quadranti et al., since the prior art patent does not consider associating a medium of interest with a selected one of different classes of media.

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B.    "Surface" Textural Features Inherent to a Medium

As previously noted, claims 21 and 22 have been amended to more clearly define the method as being one in which statistics are acquired or generated regarding surface textural features that are inherent to the medium. Quadranti et al. does not anticipate acquiring information relating to features inherent to a medium. In particular, the patent does not anticipate acquiring image information about surface textural features inherent to a medium.

Quadranti et al. is not cited for teaching image information about surface textural features inherent to a medium. Quadranti et al. teaches that image information has textural features. However, the textural features are not inherent to the medium. Applicants respectfully assert that by amending claims 21 and 22, the claims are patentably distinguishable from the cited prior art. Reconsideration of the claims is requested.

C.    Proper Rejection under Section 102

To briefly state the standard, rejections under Section 102 are proper only when the claimed subject matter is identically disclosed or described in a single prior art reference, so that there are no material differences. In re Marshall, 198 USPQ 344 (CCPA 1978). Thus, the claimed subject matter of dependent claims 2-9, 23 and 24 must be fully disclosed in the Quadranti et al. patent, if the rejections of the claims are proper. However, with regard to claims 2-9, the Office action merely states that because Quadranti et al. refers to the availability of a variety of computational methods, claims 2-9 are anticipated. That is, although the techniques described in the claims are not specifically described in Quadranti et al., the techniques are alleged to be disclosed in Quadranti et al. It is respectfully asserted that this is inconsistent with the body of law regarding Section 102 rejections.

Dependent claim 4 states that the method includes setting print parameters for applying print material on the medium of interest, with the
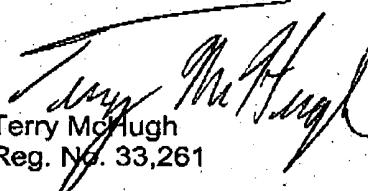
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settings of the print parameters being based on the output of the probabilistic input-output system. This is not anticipated by the teachings of the prior art patent. Support for the Section 102 rejection is respectfully requested.

Dependent claim 7 states that the imaging occurs while projecting light onto the medium of interest at an angle of less than forty-five degrees relative to an imaged surface of the medium of interest. Again, Applicants respectfully request support for the determination that this claimed feature is anticipated by the teachings of Quadranti et al.

Dependent claim 6 has been amended to state that the media classes identified in claim 1 include at least one type of paper. In view of the amendment to claim 6, it is submitted that the claim is allowable over the cited prior art.

Applicants respectfully request reconsideration of the claims in view of the amendments, and remarks made herein. A notice of allowance is earnestly solicited. In the case that any issues regarding this application can be resolved expeditiously via a telephone conversation, Applicants invite the Examiner to call Terry McHugh at (650) 969-8458.

Respectfully submitted,

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